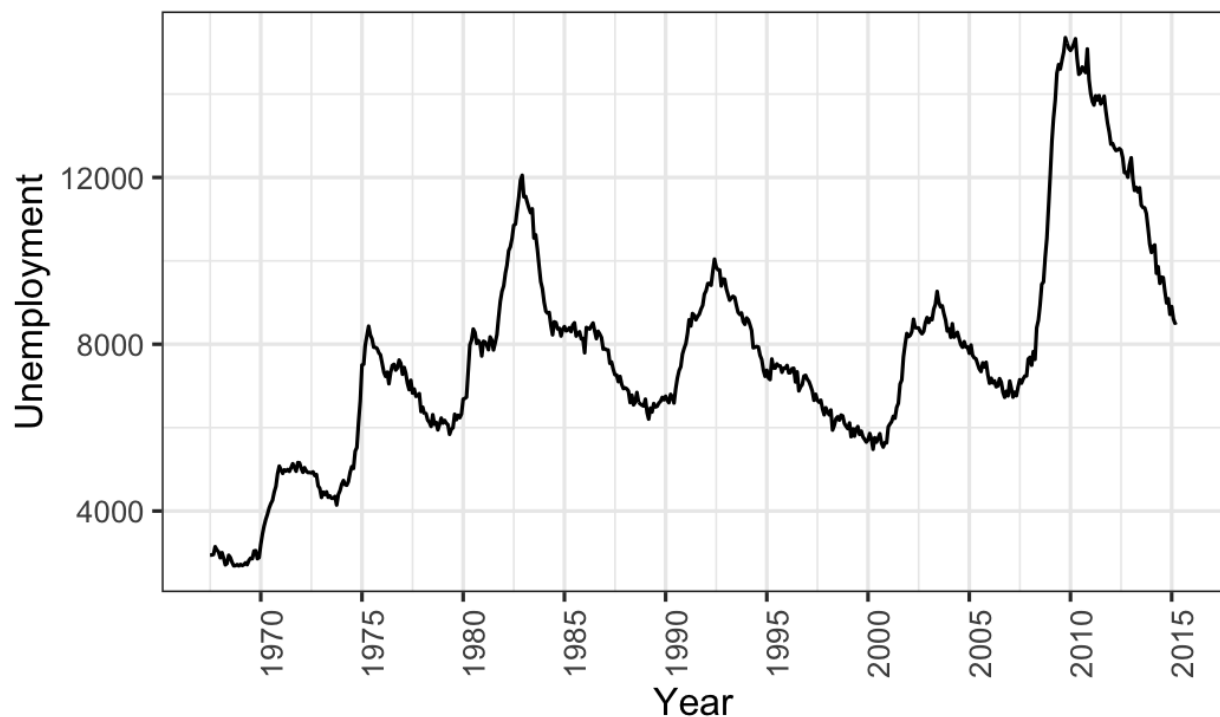


# Time Series

```
ggplot(data = economics,  
mapping = aes(  
  x = date,  
  y = unemploy  
)  
) + geom_line() + scale_x_date(date_breaks="5 year", date_labels="%Y") +  
labs(x="Year",  
y="Unemployment") +  
theme(axis.text.x=element_text(angle=90, hjust=1))
```

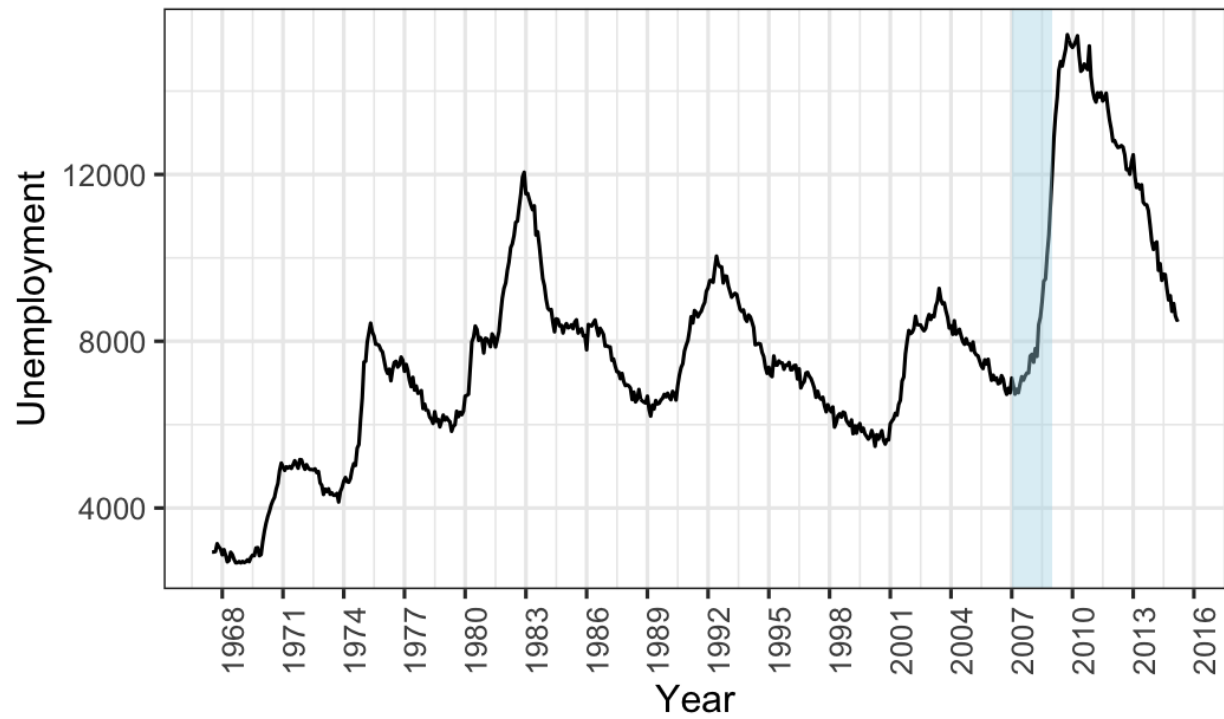


```

unemployment_annotate <-
ggplot(data = economics,
        mapping = aes(
          x = date,
          y = unemploy
        )
      ) +
geom_line() +
scale_x_date(date_breaks="3 year",
             date_labels="%Y") +

labs(x="Year",
     y="Unemployment") +
theme(axis.text.x=element_text(angle=90, hjust=1)) +
annotate(
  geom = "rect",
  ymin = -Inf,
  ymax = Inf,
  xmin = as.Date("2007-01-01"),
  xmax = as.Date("2009-01-01"),
  fill = "lightblue",
  alpha = 0.4
)

```



`*annotate(geom="rect".....)`

```
library(ggpmisc)
unemployment_annotate + stat_peaks(color="red")
```

